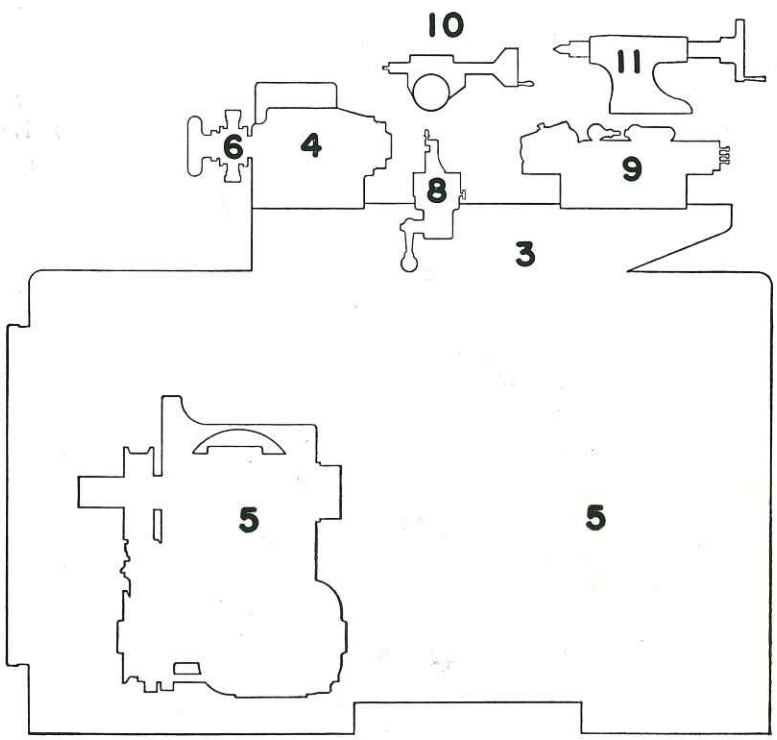
# Wade® 94

## #94 ELECTRIC CLUTCH HAND TURRET LATHE

THE WADE TOOL CO., WALTHAM 54, MASS., U. S. A.

PAGE INDEX




## SPECIFICATIONS

| | |
|---|---|
| Collet Capacity | 1 1/16″ |
| Swing over Bed | 9″ |
| Distance Between Centers | 15″ |
| Length of Bed | 36″ |
| Swing over Double Cross Slide | 5½″ |
| Swing over Compound Slide Rest | 5″ |
| Slide Rest Travel | 4½″ |
| Tool Size | ⅜ x ⅜″ |
| Tailstock Travel | 3½″ |
| Turret Travel | 5¼″ |
| Tailstock Taper | #2 Morse |
| Spindle Nose | American A2-3″ |
| Spindle Speeds Forward | 140 to 3500 RPM |
| Spindle Speeds Reverse | 350 to 1750 RPM |
| Motor — Constant Speed | 1½ HP: 1150 RPM |
| Net Weight with Drive & Cabinet | 1200# |

**Wade Lathes are designed and manufactured to achieve precision accuracy.** They fill the need for sensitive and extremely accurate machines for both production operations and toolmaking. Because of the development of many tools and attachments for these lathes, a wide variety of work can be done in the manufacture of small parts, fine tools and instrument work.

**The Wade Model 94** should be considered where the requirement of a high speed production machine, easily set up within a minimum of time and sustained close tolerance work, is required. It is specifically designed for secondary and repetitive operation work where ease of operation is a factor for consideration.

Wade-designed Lathes are built by craftsmen to work within the most exacting tolerances and to give years of carefree performance.

## SELF CENTERING BED

**The WADE SELF-CENTERING BED** is an alloy cast meehanite which is hardened and ground to precision standards. The ways consist of *two symmetrical bevelled sides* which are used for balanced, precise alignment of all attachments for the Lathe. Neither of these bevelled sides is ever in contact with a clamp, so that both bevels maintain their primary function of precise locating, and being uppermost they are easily kept clean.

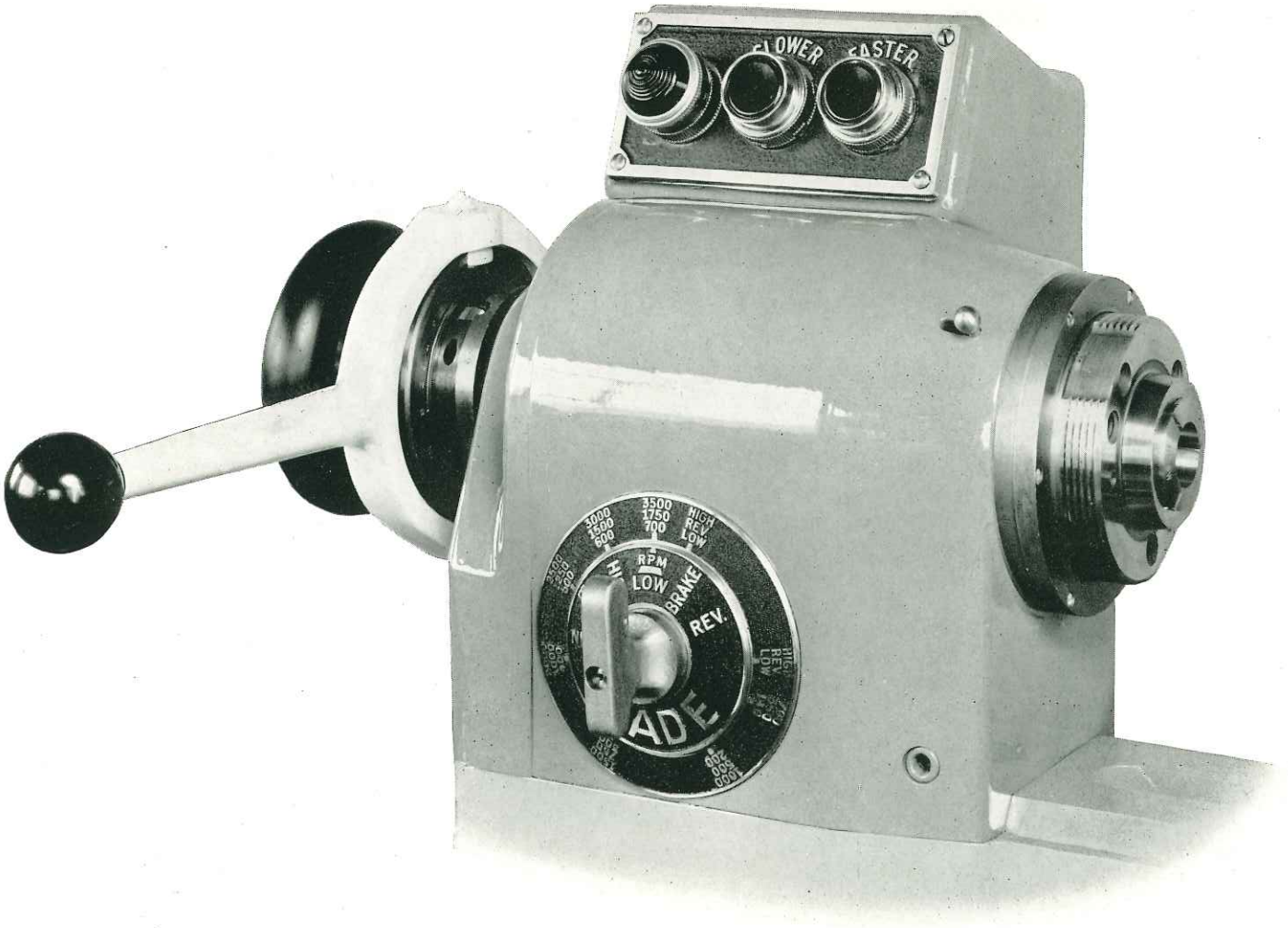
By this means all components such as the Tailstock are clamped to the Bed in *compression* to insure positive alignment, regardless of any variation in clamping pressure.

This time tested principle has produced the accurate work for which this type lathe is famous.

On the other hand, the dovetail type of bed is dependent on *one* side *alone* for the locating surface. It requires a clamp on the opposite side, and reversal of direction of spindle rotation may bring the turning force against the clamp instead of against the locating surface.

The Self-Centering Bed has a 3-point contact with the Pedestal Cabinet to eliminate distortion from external sources, with extra wide support at the head end.

Modern methods of chip removal permit a full height construction of the Bed, right down to the Cabinet, thus providing the most massive vibration-free structure possible.




## CONTROL CENTER

**Ease of operation is one of the essential factors in the success of the small Precision Lathe.** To contribute further to this facility, the Wade 94 Electric Clutch Lathe has been built around a new conception of the application of power to machine tools.

Concentrated within range of the finger tips in the area shown above, is the Control Center of the whole operation.

This provides INSTANTANEOUS and UNLIMITED response for:

Reversals
High-Low Range of 5:1
¼ second stopping
Push Button control of Infinitely Variable Speeds

The speeds obtained are indicated at this point on graduated dials.

This sensitive response results from the use of powerful Electric Clutches actuating shaved helical gears running in oil.

The infinitely variable speeds are smoothly obtained by a servo-mechanism operated by push button.

The high torque Timing Belt driving the Spindle assures constant 1½ HP over the entire range.

This is all accomplished with standard constant speed motors without resorting to multi-speed or reversing motors and the complicated set-ups involved for full magnetic controls for same.

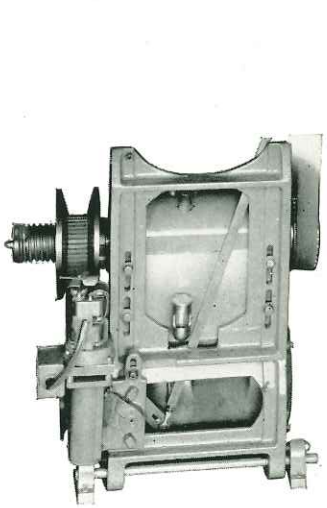
Thus a full compliance with J.I.C. standards can be assured when required.

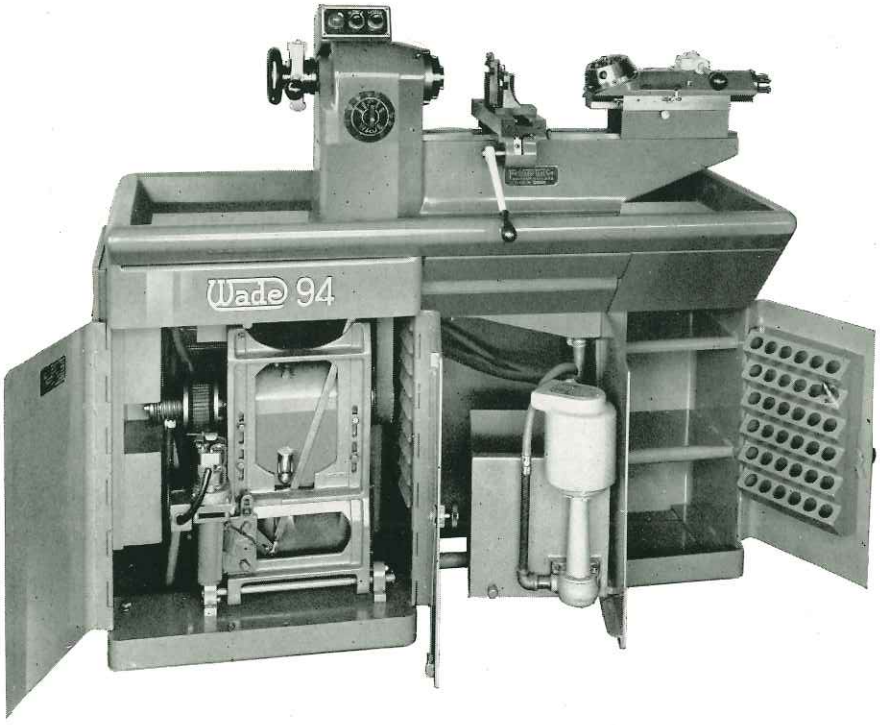
## ELECTRIC CLUTCH VARIABLE SPEED DRIVE

**The Wade designed and engineered Variable Speed Drive** offers a complete range of spindle speeds from 140 to 3500 RPM in the forward direction and from 350 to 1750 RPM in reverse. It is powered by a 1½ HP single speed motor which drives two variable pitch pulleys. The Variable Speed is obtained by changing the pitch diameter of these two pulleys. They are coupled to a box that totally encloses three countershafts on which are mounted heat treated and shaved helical gears, one double electric clutch for high-low spindle speeds and a single electric clutch providing reverse. High-low spindle speeds are in ratio of 5 to 1, and the single handle mounted in the Headstock Control Center not only controls these speeds but also actuates the mechanical reverse. At no time is it necessary to stop and start the motor in order to stop and start the headstock spindle. The Electric Clutch Drive is completely anti-friction, totally enclosed and running in oil.

Selective variable speeds for the Headstock Spindle are controlled by Push Buttons mounted on the Headstock Control. The Headstock Spindle is driven by a Gilmer Timing Belt. It is a cogged tooth belt which provides a positive drive and a smooth running spindle entirely free of vibration and slippage.

The motor control is completely enclosed and mounted on the side of the Pedestal Cabinet and protects the motor against any overload. For an additional charge either full magnetic or J.I.C. electrical components can be supplied.






## CABINET

**The Pedestal Cabinet is made of a heavy gage sheet metal** properly re-enforced and welded to assure complete rigidity. It is so designed that all components such as the Drive, Pump, Coolant Tank and storage compartments are readily accessible from the front of the machine.

The right hand side of the Pedestal Cabinet is for storage of parts and attachments. Mounted on the door is an aluminum rack for collet storage. The Cut-Away Type Cabinet provides ample knee and foot space for the operator. The motor compartment is adequately ventilated with louvered panels.

The Coolant Pump and Tank is mounted on a hinged panel. When opened, the components are readily accessible for inspection, changing the coolant or cleaning the tank. The Coolant is pumped to the work through a system of pipes and special joints.

Flexibility of the design permits directing the coolant to the work from any angle. The motor driven centrifugal pump is designed to circulate the coolant regardless of chips and grit. The Coolant drains through a chip draw equipped with a strainer. The chip draw is mounted on ball bearings and is removable for quick disposal of chips.

## HEADSTOCK BEARING

The Spindle runs in precision, anti-friction, heavy duty SKF bearings. All bearings are under a slight preload. The double-row cylindrical roller bearing supports the spindle as close to the nose as possible and takes the radial load. The thrust load is taken on a matched pair of angular contact bearings mounted at the rear of the spindle.

## HEADSTOCK SPINDLE

Material is SAE 52100 steel forging, the same type of steel as used in the manufacture of ball bearings. It is hardened to approximately 60 to 62 Rockwell C on all bearing surfaces. It is then ground and fitted to master gages. The nose is an American Standard 3″ A2, with the exclusive Wade Thread-Lock feature. The design provides for the positive and *safest* clamping and driving of face plates and jaw chucks. A clamping ring draws the plate or chuck onto a taper and against the flat on the face of the spindle, securely locking them to the bearing surfaces with accurate re-alignment every time.

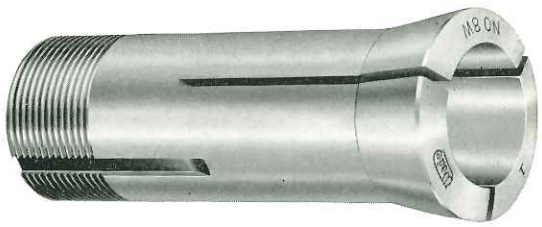
## BALL BEARING LEVER CLOSER & DRAW BAR

Production operation requires instant opening and closing of collets or step chucks, regardless of whether the headstock spindle is running at speed or stopped. To that end the Ball Bearing Collet Closer actuates *three* fingers . . . this opens or closes the collet or step chuck instantly. The draw bar handwheel may be adjusted to an infinite variety of collet adjustments and clamped securely to facilitate the opening of the collet upon release of the lever closer. The Draw Bar is part of the standard equipment of the Lathe.

An essential advantage in the use of these lathes is the fact that the collets fit directly into the Headstock Spindle without requiring any adapter or special Draw-in Spindle. This is one of the significant features of this type of lathe that the Headstock Spindle — and in fact all the components of the lathe are designed around and for the advantageous use of the collet and its work holding ability.

At the option of the customer when ordering, the No. 94 Lathe may be furnished to take the well-known 5C Collet or it may be furnished to take the Wade 8W Collet. The advantages of each are described as follows:

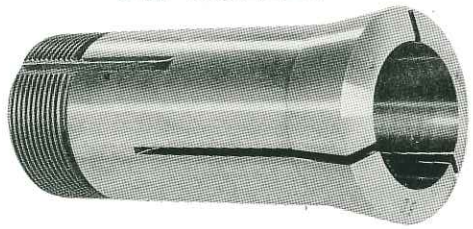
The 8W Collet is the ultimate for precision and long life. It is longer so that the locating surfaces, being farther apart, have greater control over accuracy. It is ground inside and out after hardening on all locating surfaces. The screw thread is ground from the solid after hardening. This thread has a buttress form, presenting a mating surface at right angles to the draw-in force; thus resisting any expanding tendency in the Draw-in Spindle and consequent overriding of screw threads, a condition apparent on many V-thread collets in use for any length of time.



8W COLLET

The 5C Collet is in general use, and has the advantages of standardization and interchangeability where there already is a stock of such collets in use.

Both of these types of collets have a maximum capacity of 1-1/16″ round.



5C COLLET

STEP CHUCKS

Step Chucks made from steel forgings contribute the same convenience and accuracy in holding diameters up to and slightly over 6″.

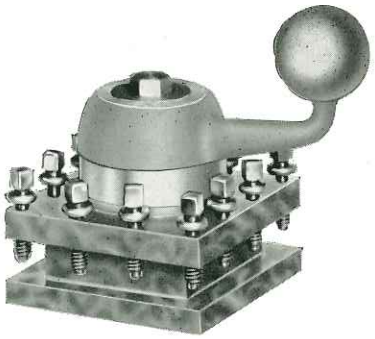
STATOR COLLET

As a further contribution to precision work on the No. 94 Lathe, the Stator Collet is offered. The Stator Collet grips the workpiece without any lengthwise movement, so that it is held accurately for shoulder measurements every time. One master collet is required and this will hold any number of Stator Collets. The maximum capacity is 7/8″ round.

A further advantage is that it can be converted within a minute to the use of regular collets, jaw chucks, step chucks or face plate work, whereas the other systems of stationary collets cannot.

COLLET STOP

The Collet Stop locates in the Draw bar and may be externally adjusted. Complete with Two Pads and Spring Ejector. Can be adjusted without removing collet from spindle.



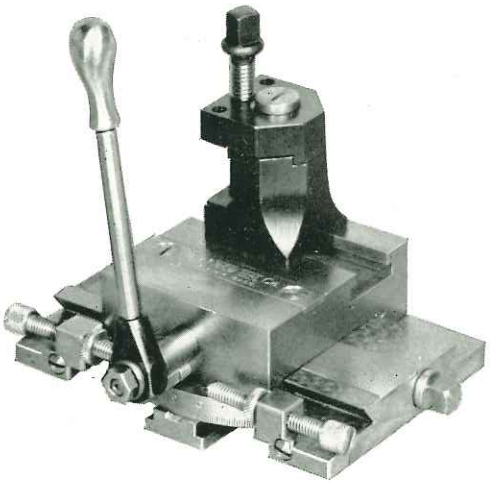
## AUTOMATIC TURRET TOOL POST

The Automatic Turret Tool Post mounts in place of the standard tool holder. Tool bits ⅜″ square are used.

Counter-clockwise rotation of the handle unlocks the turret and indexes it to the next position. To complete the cycle, the turret handle is drawn toward the operator until securely clamped in position. Because the accuracy of the turret is not dependent upon sliding bolts or pins, it will repeat to within .0002″.

## MULTIPLE TOOL BLOCK

Used on the swivel slide to replace the front tool holder. Its open ends allow up to 4 standard tool bits to be positioned to perform such operations as forming, facing, turning multiple diameters, in many cases eliminating the necessity of using expensive form tools.



## SWIVEL SLIDE

The Swivel Slide is usually mounted on the front of the Double Cross Slide for straight or taper turning. It can also be mounted on the rear of the Cross Slide by the use of a standard adapter plate.

The Slide has a movement of 2½″ and is equipped with adjustable stops.

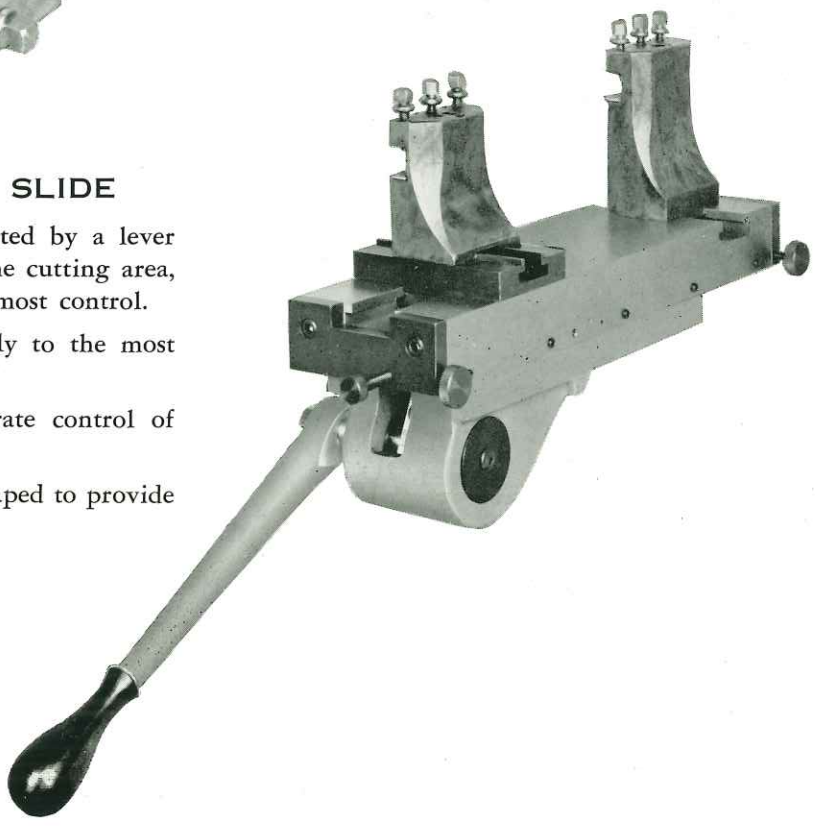
## DOUBLE ACTION CROSS SLIDE

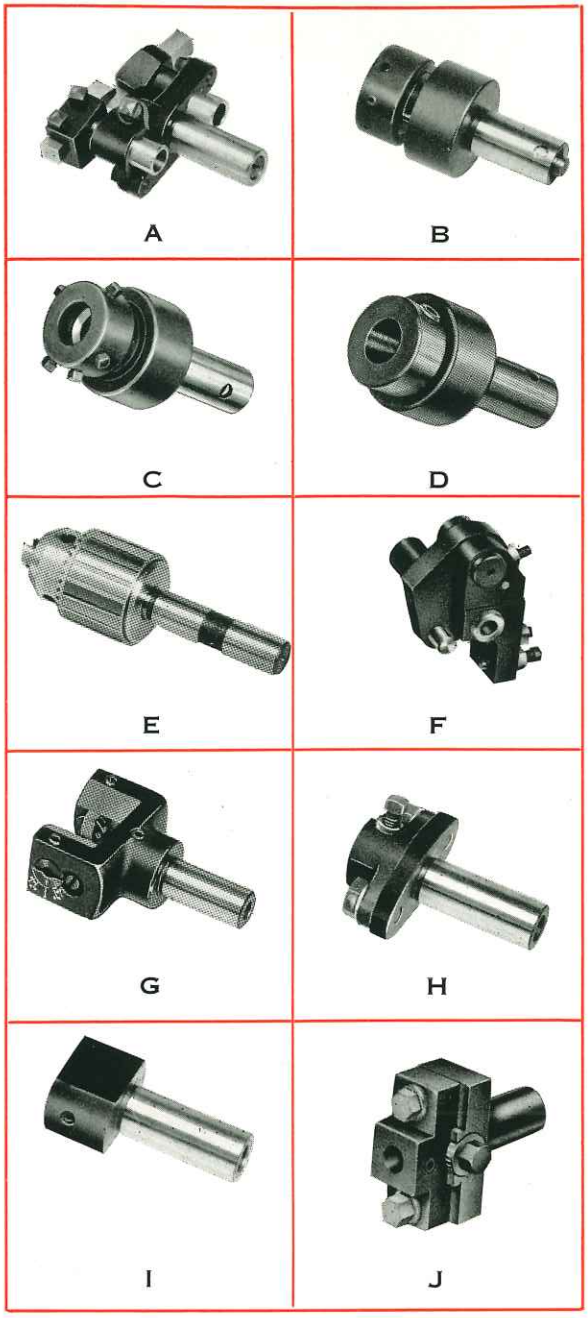
The Double Action Cross Slide is actuated by a lever system to provide a rapid approach to the cutting area, and then a slowing down to give the utmost control.

The operating lever is adjustable radially to the most convenient operating position.

Adjustable stops are provided for accurate control of the cut.

The Tool Posts are hardened steel and shaped to provide the maximum tool clearance.



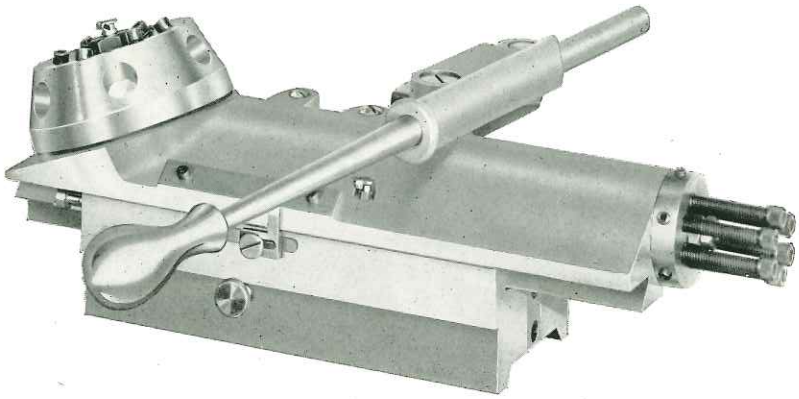



## TURRET ATTACHMENT

The six station Turret has a tilted head in order to clear tools as they are indexed. The holes in the turret head are either ¾″ or ⅝″ in diameter and 1½″ deep. The six independently adjustable stops index automatically with the turret head. Operation of the Hand Lever automatically unlocks the turret head, indexes it to the next station, and clamps it. When the ram is flush with the front of the turret base, the turret head may be revolved freely — in either direction — to any desired tool position. The length of the hand lever is adjustable to suit the convenience of the operator.

The ram has a working travel of 4¼″, the indexing travel is 1″ — making a total movement of 5¼″. The dovetail bearing surfaces of the slide are scraped-in for enduring accuracy. To enable the maintenance of correct alignment, each side of the slide dovetail has a long, adjustable taper gib.

A Turret Head with 1″ diameter holes can be supplied.



**A** Box Turning Tool
**B** Releasing Die Holder
**C** Releasing Acorn Die Holder
**D** Releasing Tap Holder
**E** Drill Chuck
**F** Swing Tool
**G** Adjustable Knurl Holder
**H** Floating Holder
**I** Drill Holder
**J** Recessing Tool

## SUPER SLIDE REST

The Super Slide Rest combines the tried and proven features of a conventional slide rest, such as the ease with which it can be put on or taken off the lathe, its sturdy accuracy, convenience and sensitivity in turning operations with exclusive improvements in design, as follows:

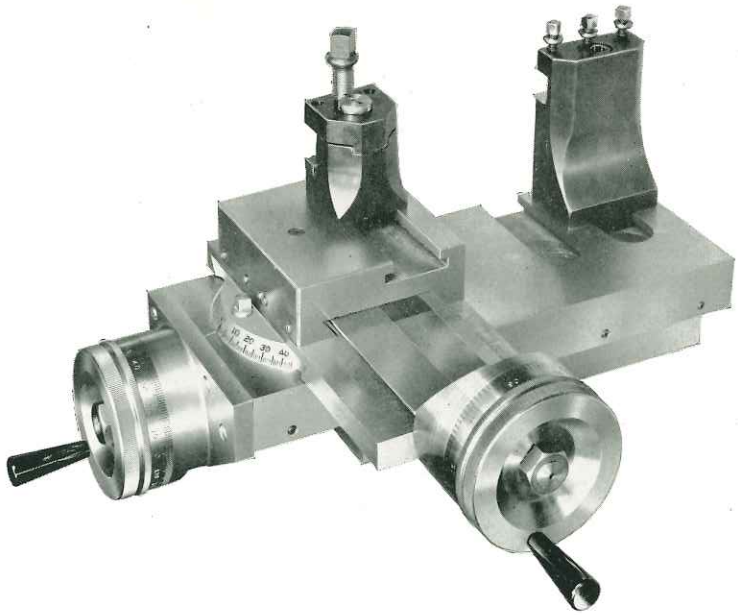
(1) Center Drive Tool Slide. Always before, the Swivel Slide had to be slotted on one side to insert the feed screw nut. With the Wade, it is no longer necessary to weaken the slide in this manner. The feed screw drives the Tool Slide directly down the center of the slide.

(2) Swivel Slide, with graduated degrees reading in front, may be swung and used at any angle that may possibly be required *without interference* between handles or slides.

(3) Rear Tool Station & Tool Post — now standard equipment — makes turning and cutting off, or any other two operations possible without disturbing tools. In many cases it is possible to leave a cut-off tool in position continually, thus saving tool changing. If not originally required, the Rear Tool Post may be ordered later.

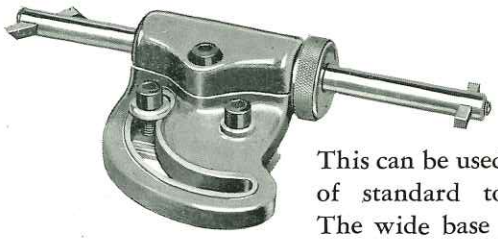
(4) Open Side Tool Holder is standard equipment. It provides the flexibility of the yoke type with the rigidity of the open side type. It also has the great advantage of closer work to the Spindle. If desired, the yoke type Tool Post may be substituted for the Open Side, or the Automatic Turret Tool Post can be used to good advantage on duplicate operations.

(5) Resettable Dials 2-13/16″ in diameter are finished in satin-chrome plate. Both dials are direct reading in thousandths of an inch. Graduations are wide enough to allow finer increments to be estimated. The ½″ diameter feed screws are made from alloy steel and the acme threads are ground after hardening. Both screws are supported and the thrust is taken by ball bearings, thus insuring ease of operation and sensitivity of control.



## YOKE TYPE TOOL POST

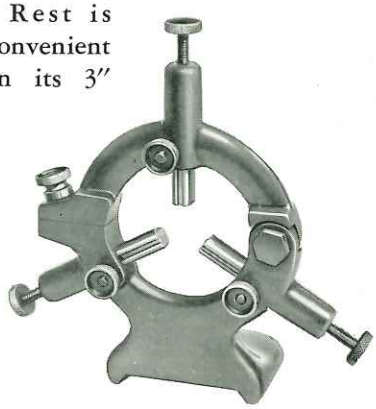
## BORING & TURNING TOOL HOLDER



This can be used in place of standard tool post. The wide base is bolted to the slide support for boring, threading, turning and facing operations.

## STEADY REST

The Steady Rest is hinged for convenient loading within its 3″ capacity.



# TAILSTOCKS

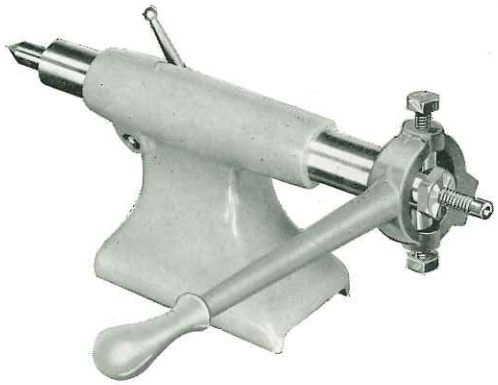
The Tailstocks are designed for rugged accurate work with the utmost sensitivity. Hand Scraped to exact alignment with the headstock, the self-centering feature insures accurate line-up with the headstock regardless of clamping pressure. The offset type provides maximum clearance.

The Spindles are hardened, ground and honed to fit the tailstock body and designed in such a way as to provide a full length bearing regardless of how far it is extended.

The Screw Feed Tailstock has a large Acme thread in a long bronze nut. A knockout plug automatically ejects center from the ground taper hole when the spindle is drawn back to the limit. The thrust is taken on ball thrust bearings thus insuring sensitivity under all load conditions. The spindle is graduated in sixteenths of an inch and the screw feed is provided with adjustable micrometer dial graduated in thousandths of an inch.

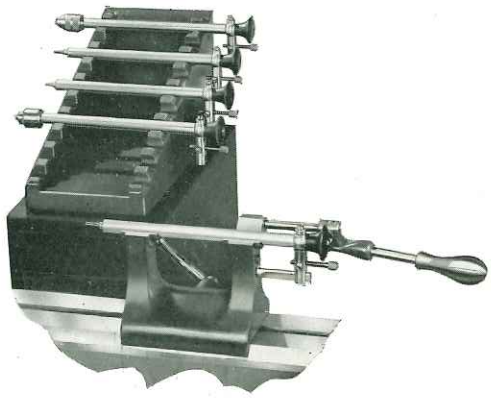
TAILSTOCK

The Lever Tailstock is useful on short run production jobs. The standard screw tailstock can be readily converted to the lever type or back to the screw type in a few moments.



LEVER TAILSTOCK

The Half Open Tailstock is made to receive rapidly one or more tool spindles with tool all set for certain operations. Resting on hardened steel, ground and lapped bearings, this provides a simple method of obtaining absolute repetitive accuracy in light manufacturing.



HALF OPEN TAILSTOCK

# #94 FINISHING LATHE WITH TURRET TOOL POST & MACHINE LIGHT

Wade®

82+

# #94 PICTORIAL PRICE LIST

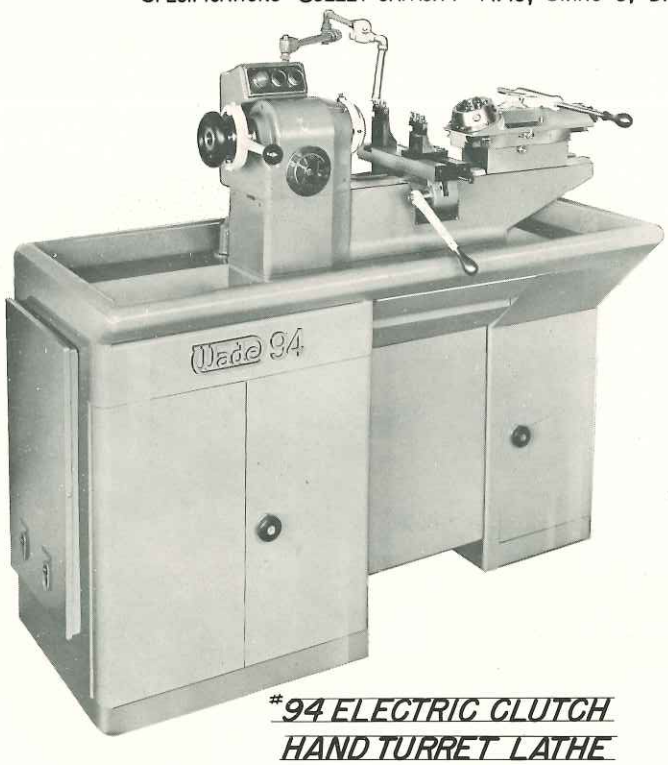
Wade® Tool Co. 49 RIVER ST. APRIL 1958

WALTHAM 54, MASS., U.S.A.

PRICES—CRATED FOR DOMESTIC SHIPMENT F.O.B. WALTHAM—SUBJECT TO CHANGE WITHOUT NOTICE SUPERSEDING ALL PREVIOUS ISSUES.

AS A RESULT OF YEARS OF ENGINEERING RESEARCH, THE #94 IS PRESENTED AS THE HIGHEST POINT YET, IN SPEED AND EASE OF OPERATION ON 2ND OPERATION AND ACCURATE BAR AND CHUCKING WORK. AS EVIDENCE NOTE THE OPERATING FEATURES. A SERVO-MECHANISM OPERATED BY PUSH BUTTONS, CONTROLS INFINITELY VARIABLE SPINDLE SPEEDS ELECTRIC CLUTCHES EFFECT INSTANT AND UNLIMITED REVERSING. HIGH TO LOW RATIO 5:1 AND BRAKING WITHOUT INTERRUPTING THE CONSTANT SPEED OF THE STANDARD MOTOR. THUS THE MOTOR IS FREE FROM HEAT BUILDUP AND WASTE OF POWER FROM THIS SOURCE. THIS ALSO PROVIDES MORE POWER AT LOW SPEEDS THAN A MULTI-SPEED MOTOR. THE SELF-CENTERING FORM OF BED, FLAME-HARDENED AND GROUND INSURES PERMANENT ACCURACY. OF HEAVY RIGID CONSTRUCTION IT IS FREE FROM VIBRATION. MEANS FOR CONVENIENT CHIP REMOVAL IS PROVIDED. THE SPINDLE IS RIGIDLY SUPPORTED BY DOUBLE ROW ROLLER BEARINGS OF EXTREME PRECISION. THESE ARE A FEW EXAMPLES OF THE CONSIDERATION THAT HAS BEEN GIVEN TO CONVENIENT AND PRECISE HANDLING OF ALL COMPONENTS.

SPECIFICATIONS- COLLET CAPACITY—1-1/16"; SWING—9"; DISTANCE BETWEEN CENTERS—15"; SPINDLE NOSE AMERICAN A2-3"




## #94 ELECTRIC CLUTCH HAND TURRET LATHE

STANDARD EQUIPMENT——— FLAME HARDENED AND GROUND SELF- CENTERING BED. TOTALLY ENCLOSED HEADSTOCK, SPINDLE NOSE GUARD, DRAW-IN SPINDLE, BALL BEARING LEVER CLOSER, DOUBLE ACTION CROSS SLIDE WITH STEEL TOOL POSTS, AUTOMATIC INDEXING SIX-POSITIONED TILTED HEAD TURRET.

WADE ELECTRIC CLUTCH VARIABLE SPEED DRIVE WITH INFINITE SPINDLE SPEEDS FROM 140 TO 3500 R.P.M. HIGH TO LOW RATIO IS 5 TO 1. INSTANT REVERSE IS TWICE THE LOW SPEED. PUSH. BUTTON CONTROLLED SPEED CHANGES FROM THE CONTROL CENTER. INSTANTANEOUS AUTOMATIC SPINDLE BRAKE FROM ANY SPEED OR DIRECTION. THE WELDED STEEL CABINET HAS A BUILT IN CHIP PAN AND COOLANT SUMP. REMOVABLE CHIP PAN DRAWER AND STORAGE FOR 36 COLLETS.

BUILT IN COOLANT SYSTEM INCLUDING MOTOR DRIVEN PUMP AND COMPLETE PIPING. _____ *3,242.00*

MOTOR AND ELECTRICAL CONTROLS TO PROVIDE COMPLETE OVERLOAD PROTECTION FOR BOTH SPINDLE DRIVE MOTOR & PUMP. DUAL VOLTAGE 220/440 60 CY. 3 PH. OR 550 60 CY. 3 PH. CONTROL CENTER SPEED CHANGING WITH PUSH BUTTONS TO CHANGE SPEED AND PILOT LIGHT. ALL ELECTRICAL COMPONENTS ARE MOUNTED ON A REMOVABLE PANEL AND ALL CONTROL VOLTAGE AT 24 OR 110 VOLTS. _ *230.00* _ *3,472.00*

MOTOR & ELECTRICAL CONTROLS TO J.I.C. STDS. _ *455.00* *3,697.00*

## #94 ELECTRIC CLUTCH FINISHING LATHE

STANDARD EQUIPMENT——— FLAME HARDENED AND GROUND SELF-CENTERING BED. TOTALLY ENCLOSED HEADSTOCK, SPINDLE NOSE GUARD, DRAW-IN SPINDLE, CENTER COLLET AND CENTER, DOG FACE PLATE, TAILSTOCK WITH CENTER.

WADE ELECTRIC CLUTCH VARIABLE SPEED DRIVE WITH INFINITE SPINDLE SPEEDS FROM 140 TO 3500 R.P.M. HIGH TO LOW RATIO IS 5 TO 1. INSTANT REVERSE IS TWICE THE LOW SPEED. PUSH BUTTON CONTROLLED SPEED CHANGES FROM THE CONTROL CENTER. INSTANTANEOUS AUTOMATIC SPINDLE BRAKE FROM ANY SPEED OR DIRECTION. THE WELDED STEEL CABINET HAS A BUILT IN CHIP PAN AND COOLANT SUMP. REMOVABLE CHIP PAN DRAWER AND STORAGE FOR 36 COLLETS. _____ *2,496.00*

MOTOR & ELECTRICAL CONTROLS DUAL VOLTAGE 220/440 60 CY. 3 PH. OR 550 60 CY. 3 PH. _ *230.00* _ *2,726.00*

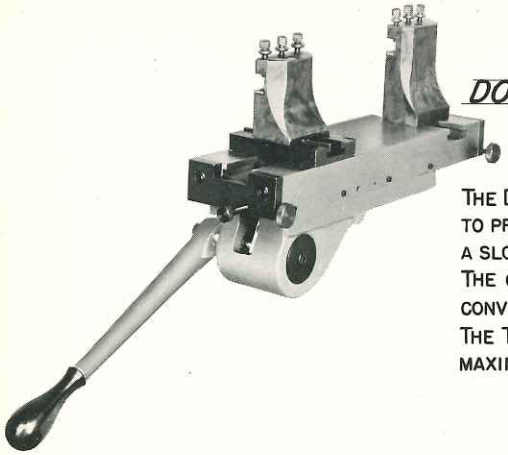
SUPER SLIDE REST_____ SATIN CHROME RESETTABLE DIALS CONTROL THE ½" ACME SCREWS. COMPLETE WITH OPEN SIDE TOOL POST AND REAR TOOL STATION. _____ *336.00*

LEVER COLLET CLOSER———INFINITELY ADJUSTABLE 3 FINGER BALL BEARING LEVER COLLET CLOSER. _____ *140.00*

BUILT IN COOLANT SYSTEM INCLUDING MOTOR DRIVEN PUMP AND COMPLETE PIPING. _____ *165.00*

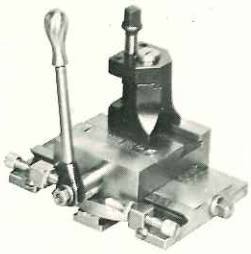
MOTOR & ELECTRICAL CONTROLS TO J.I.C. STDS. *455.00*

# MODEL 94



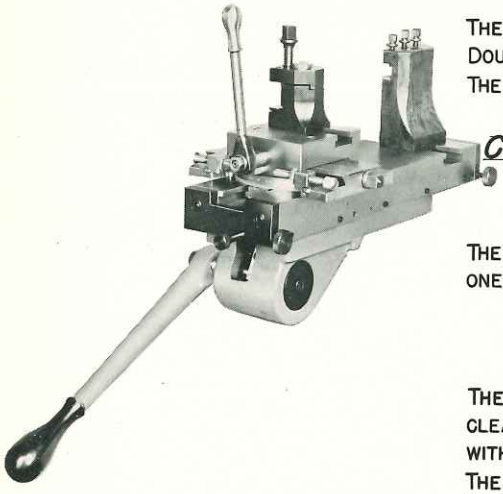
## DOUBLE ACTION CROSS SLIDE

THE DOUBLE ACTION CROSS SLIDE IS ACTUATED BY A LEVER SYSTEM TO PROVIDE A RAPID APPROACH TO THE CUTTING AREA AND THEN A SLOWING DOWN TO GIVE THE UTMOST CONTROL.
THE OPERATING HANDLE IS ADJUSTABLE RADIALLY TO THE MOST CONVENIENT POSITION.
THE TOOL POSTS ARE STEEL AND ARE SHAPED TO PROVIDE THE MAXIMUM TOOL CLEARANCE. _____ *210.00*



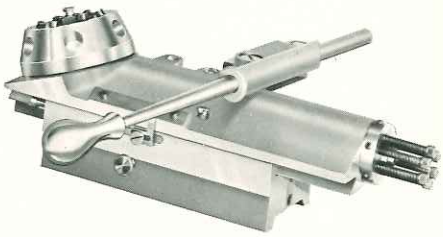
## SWIVEL SLIDE

THE SWIVEL SLIDE IS USUALLY MOUNTED ON THE FRONT OF THE DOUBLE ACTION CROSS SLIDE FOR STRAIGHT OR TAPER TURNING. THE OPEN SIDE TOOL POST IS STANDARD EQUIPMENT. ____ *125.00*



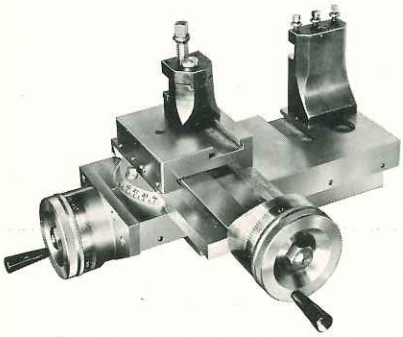
## CROSS SLIDE WITH SWIVEL SLIDE

THE SWIVEL SLIDE REPLACES THE FRONT TOOL BLOCK TO ALLOW ONE OR MORE TURNING OPEATIONS. _____ *312.00*



## TURRET ATTACHMENT

THE SIX STATION TURRET IS TILTED TO PROVIDE MAXIMUM TOOL CLEARANCE. THE INDEPENDENT STOPS ARE AUTOMATICALLY INDEXED WITH TURRET.
THE RAM HAS A WORKING TRAVEL OF 4-1/4" AND AN INDEXING TRAVEL OF 1." _____ *485.00*

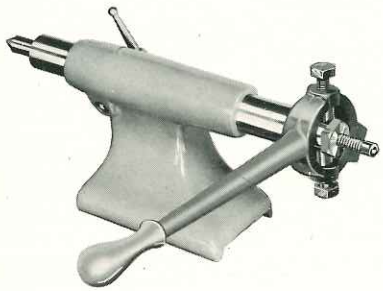


## SUPER SLIDE REST

THE SUPER SLIDE REST HAS A NEW CENTER DRIVEN TOOL POST SLIDE AND OPEN SIDE TOOL POST. THE LARGE SATIN CHROME DIALS BOTH READ DIRECTLY IN THOUSANDTHS AND ARE RESET-TABLE TO ZERO. THE SLIDES ARE DRIVEN BY 1/2" DIAMETER SCREWS SUPPORTED ON BALL BEARINGS. THE REAR TOOL STATION AND TOOL POST IS STANDARD EQUIPMENT. _____ *336.00*

## TAILSTOCK

THE FULL BEARING TAILSTOCK HAS A HARDENED AND GROUND 1- 3/8" DIAMETER SPINDLE GRADUATED IN 16THS FOR ITS 3-1/2" TRAVEL. TOOLS ARE AUTOMATICALLY EJECTED AT THE REAR POSITION.
THE TAPER IS #2 MORSE. THE RESETTABLE DIAL IS USEFUL ON SHORT RUN PRODUCTION JOBS. _____ *166.00*



## LEVER TAILSTOCK

THE LEVER TAILSTOCK IS THE SAME AS THE STANDARD WITH THE INTERCHANGE OF THE LEVER ASSEMBLY FOR THE SCREW AND NUT. THE STANDARD TAILSTOCK CAN BE CONVERTED TO LEVER OPERATION IN A MATTER OF MINUTES. _____ *178.00*

# PICTORIAL PRICE LIST SUPPLEMENT

Wade® Tool Co 49 RIVER ST. APRIL 1958

WALTHAM 54, MASS. U.S.A.

PRICES—CRATED FOR DOMESTIC SHIPMENT F.O.B. WALTHAM—SUBJECT TO CHANGE WITHOUT NOTICE SUPERSEDING ALL PREVIOUS ISSUES
THIS PRICE LIST SUPPLEMENT APPLIES TO THE 94 AND 10 B SERIES LATHES. WHEN ORDERING ACCESSORIES FOR EARLIER MODELS PLEASE INDICATE THE MODEL AND SERIAL NUMBER OF THE MACHINE.

## STANDARD COLLET

THE #8 COLLET HAS A MAXIMUM CAPACITY OF 1-1/16", ALL BEARING SURFACES INCLUDING THE THREADS ARE GROUND AFTER HARDENING, 1/16" AND OVER. ____ 6.85
5C 1/8" & LARGER ____ 5.95
#8 WADE ODD ROUND SIZES- UNDER 1/16" OR DECIMAL OR METRIC. ____ 11.30

## HEX OR SQUARE COLLET

THE 8 HEX COLLET HAS A MAXIMUM CAPACITY OF 7/8". THE SQUARE COLLET HAS A MAXIMUM CAPACITY OF 3/4".
____ 13.50
5C ____ 8.95

## STEP COLLET

THE #8 STEP COLLET HAS A MAXIMUM CAPACITY OF 1-1/4 X 1/4". 6.35
HARDENED AND GROUND TO SPECIFIED SIZE. ____ 17.35
5C ____ PER QUOTATION

## POT COLLET BLANK

THE POT COLLET IS USEFUL WHERE GREATER THEN THE STEP COLLET IS REQUIRED.
____ 7.00
5C ____ 5.75

## SOFT BLANK

THE SOFT BLANK IS MADE FROM ALLOY STEEL PARTIALLY SLOTTED TO ALLOW SPECIAL SIZES AND SHAPES TO BE MADE.
____ 6.35
5C ____ 4.95

## CENTER COLLET

THE HARDENED AND GROUND CENTER COLLET ACCEPTS MALE, OR FEMALE SPECIAL CENTERS WITH A # 2 MORSE SHANK. ____ 17.50
5C ____ 17.50

## STATOR COLLET

THE STATOR COLLET ASSEMBLY HOLDS THE STOCK STATIONARY AND CAN BE FITTED TO ANY WADE SPINDLE IN A FEW SECONDS. MAXIMUM CAPACITY IS 7/8" ROUND 3/4" HEX AND 5/8" SQUARE.
____ 8.50
MASTER 15.00 CAP 27.00

## MALE CENTER

THE MALE CENTER IS HARDENED AND GROUND HIGH SPEED STEEL. ____ 5.00

## FEMALE CENTER

THE FEMALE CENTER IS HARDENED AND GROUND TOOL STEEL. ____ 6.90

## BULL CENTER

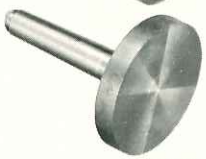
THE BULL CENTER HAS A HEAD DIA. OF 1-1/4". ____ 8.40

## REVOLVABLE V CENTER

THE REVOLVABLE V CENTER IS USEFUL FOR HOLDING ROUND STOCK TO BE DRILLED IN THE TAILSTOCK. ____ 16.35

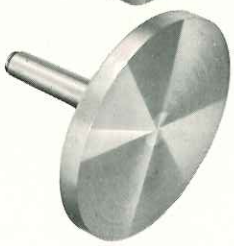
## *BALL BEARING CENTER

THE BALL BEARING CENTER IS USEFUL FOR HIGH SPEED TURNING BETWEEN CENTERS.
____ 29.70



## 3" DRILL PLATE

THE 3" DRILL PLATE IS USEFUL FOR HOLDING FLAT PIECES IN THE TAILSTOCK WITH #2 MORSE TAPER SHANK. 16.65



## 5" DRILL PLATE

THE 5" DRILL PLATE IS THE SAME AS THE 3" EXCEPT LARGER. ____ 17.60

## *CIRCULAR TOOL POST FRONT

FRONT CIRCULAR TOOL POST TAKES CIRCULAR FORM TOOL 1-3/4" DIAMETER X 1" WIDE IN PLACE OF FRONT TOOL BLOCK, COMPLETE WITH ADAPTER. ____ 72.00

## *CIRCULAR TOOL POST REAR

REAR CIRCULAR TOOL POST TAKES CIRCULAR FORM TOOLS 1-3/4" DIAMETER X 1" WIDE IN PLACE OF REAR TOOL BLOCK, COMPLETE WITH ADAPTER. ____ 72.00

## *LUERS CUTTING OFF TOOL HOLDER

THE LUERS CUTTING-OFF TOOL HOLDER FITS THE STANDARD REAR HOLDER.
WITHOUT BLADE. ____ 22.50
HIGH SPEED STEEL BLADE. ____ 2.65

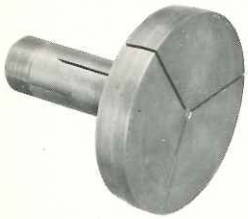
THE WADE TOOL CO. 49 RIVER ST. WALTHAM 54, MASS. U.S.A.

*COMMERICAL ITEM

# PICTORIAL PRICE LIST SUPPLEMENT

## 2" STEP CHUCK

THE #8 2" STEP CHUCK IS PARTIALLY SLOTTED. ITS MAXIMUM CAPACITY IS 2"X ½" DEEP. NO CLOSER IS REQUIRED. 14.50
5C _____ 13.00

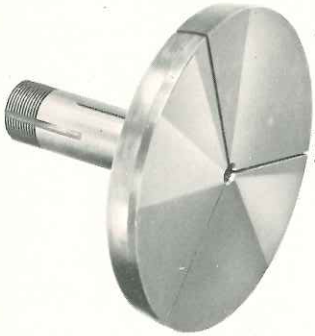


## 4" STEP CHUCK

THE #8 4" STEP CHUCK IS A FORGING PARTIALLY SLOTTED, READY TO BORE WITHIN ITS 4"X 5/8" CAPACITY. 21.00
5C _____ 20.00

## 4" STEP CHUCK CLOSER

THE 4" STEP CHUCK CLOSER MUST BE USED WITH THE 4" STEP CHUCK. IT IS FASTENED TO THE SPINDLE NOSE WITH 3 CAPTIVE SCREWS. _____ 20.35
5C _____ 25.00



## 6" STEP CHUCK

THE #8 6" STEP CHUCK IS A FORGING PARTIALLY SLOTTED, READY TO BORE WITHIN ITS 6"X 5/8" CAPACITY.
_____ 27.25
5C _____ 26.50

## 6" STEP CHUCK CLOSER

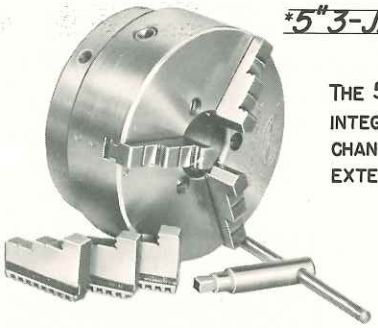
THE 6" STEP CHUCK CLOSER MUST BE USED WITH THE 6" STEP CHUCK. THREE CAPTIVE SCREWS HOLD THIS CLOSER TO THE AMERICAN A2 SPINDLE NOSE.
_____ 26.00
5C _____ 29.50

## SLOTTED & TAPPED FACE PLATE

THE #8-½" SLOTTED AND TAPPED FACE PLATE HAS A TOTAL OF 36 5/16-18 HOLES AND MOUNTS DIRECTLY ON THE SPINDLE NOSE, THREAD LOCK MOUNT.
_____ 48.00

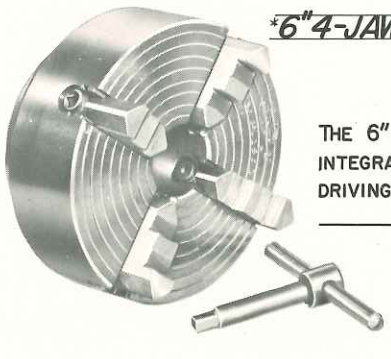
## DOG FACE PLATE

THE DOG FACE PLATE IS 6" IN DIAMETER. IT IS HELD IN PLACE BY THE THREAD LOCK MOUNT AND IS CAREFULLY BALLANCED.
_____ 27.50



## *5" 3-JAW UNVERSAL CHUCK

THE 5" 3-JAW UNIVERSAL CHUCK HAS AN INTEGRAL THREAD LOCK MOUNT AND INTERCHANGEABLE JAWS FOR INTERNAL AND EXTERNAL WORK. _____ 106.00



## *6" 4-JAW INDEPENDENT CHUCK

THE 6" 4-JAW INDEPENDENT CHUCK IS INTEGRALLY MOUNTED WITH POSITIVE DRIVING PIN, THREAD LOCK MOUNT.
_____ 94.00

*A-BOX TOOL _____ 96.50

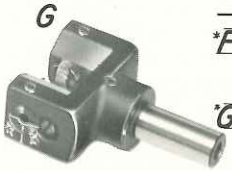
*B-RELEASING DIE HOLDER _____ 50.00

*C-RELEASING ACORN DIE HOLDER _____ 53.50

*D-RELEASING TAP HOLDER _____ 31.00

*E-BUSHING WITH HOLE _____ 8.00

*F-BUSHING WITHOUT HOLE _____ 1.65



*G-ADJ. KNURL HOLDER _____ 58.00

*H-FLOATING HOLDER _____ 14.00

*I-DRILL HOLDER ____ 10.75

*J-RECESSING TOOL 93.50
*K-KNEE TOOL _____ 48.00

*L-½ DRILL CHUCK ____ 14.00
*⅜ DRILL CHUCK ____ 11.50
*¼ DRILL CHUCK ____ 9.50

**THE WADE TOOL CO. 49 RIVER ST. WALTHAM 54, MASS. U.S.A.**

*COMMERICAL ITEM

# MODEL 94

## LEVER COLLET CLOSER

THE BALL BEARING LEVER CLOSER IS EASY TO OPERATE AND INFINITELY ADJUSTABLE TO POSITIVELY CLOSE AND OPEN THE COLLET. THREE FINGERS INSURE EVEN PRESSURE APPLIED TO DRAW BAR. _____ 140.00

## STEADY REST

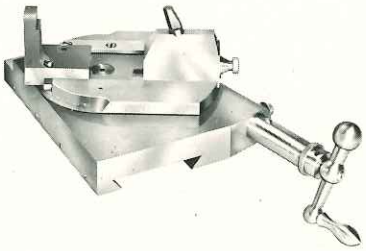
THE STEADY REST IS HINGED FOR CONVENIENT LOADING WITHIN ITS 3" CAPACITY _____ 44.00

## HAND REST

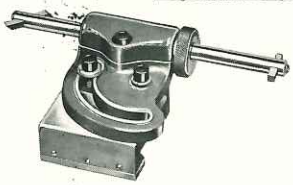
THE HAND REST CLAMPS ON THE BED AND IS USEFUL FOR TURNING AND CERTAIN BURRING OPERATIONS _____ 14.00

## RADIUS TURNING ATTACHMENT

THE RADIUS TURNING ATTACHMENT MACHINES CONCAVE OR CONVEX SURFACES WITHIN 0" TO 3 3/4" DIAMETER CAPACITY. INTERCHANGEABLE TOOL HOLDERS AND A SET BLOCK ARE PROVIDED TO ALLOW THE RADIUS TO BE PRE-SET TO THE DESIRED DIAMETER. CIRCULAR MOTION IS THROUGH A WORM AND WORM GEAR. _____ 390.00



## BORING & TURNING TOOL HOLDER



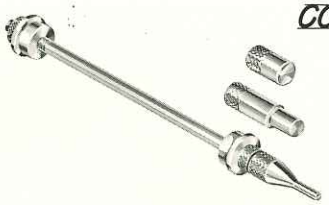
BORING AND TURNING TOOL HOLDER CAN BE USED ON THE SWIVEL SLIDE OR SLIDE REST TO REPLACE THE STANDARD TOOL HOLDER. _____ 20.00

BORING BAR WITH TWO 3/16" H.S.S TOOL BITS. _____ 6.70

## *MACHINE LIGHT

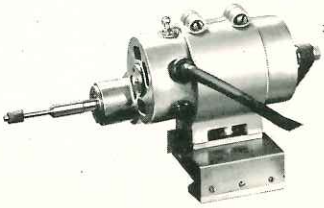
INCANDESCENT LIGHTING UNIT WITH HEAT SHIELD COMPLETE WITH CORD, PLUG AND SWITCH. _____ 12.50

## COLLET STOP



THE COLLET STOP LOCATES IN THE DRAW—BAR AND MAY BE EXTERNALLY ADJUSTED. COMPLETE WITH TWO PADS AND SPRING EJECTOR. ____ 21.50

## *GRINDING ATTACHMENT



GRINDING ATTACHMENT APPLIED TO THE SWIVEL SLIDE OR SLIDE REST ALLOWS INTERNAL OR EXTERNAL GRINDING. ____ 136.00

## *BAR FEED

PNEUMATIC BAR FEED COMPLETE WITH STOCK RACK, PRESSURE CONTROL AND GAUGE. CAPACITY 1" BARS 12' LONG _____ 350.00

## OPEN SIDE TOOL POST

THE OPEN SIDE TOOL HOLDER PROVIDES THE FLEXIBILITY OF THE YOKE TYPE WITH THE RIGIDITY OF THE CONVENTIONAL OPEN TYPE. ANOTHER GREAT ADVANTAGE IS THAT IT ALLOWS THE TOOL TO COME CLOSEST TO THE SPINDLE NOSE OR CHUCK. PRICE INCLUDES WRENCH. _____ 25.00

## TOOL POST

THE YOKE TYPE TOOL POST MAY BE USD ON THE SWIVEL SLIDE OR SLIDE REST IN PLACE OF THE OPEN SIDE TOOL POST. PRICE INCLUDES WRENCH. ____ 25.00

## MULTIPLE TOOL HOLDER

THE MULTIPLE TOOL BLOCK IS USEFUL FOR MULTIPLE TURNING OR SIMPLE FORMING. ITS OPEN ENDS ALLOW UP TO FOUR 3/8" TOOL BITS TO BE POSITIONED SIMULTANEOUSLY. _____ 36.00

## TURRET TOOL POST

THE TURRET TOOL POST HOLDS FOUR 3/8" TOOL BITS WHICH ARE AUTOMATICALLY INDEXED AND CLAMPED WITH 100° MOTION OF THE HANDLE, BECAUSE THE TURRET DOES NOT DEPEND ON SLIDING BOLTS OR PINS IT WILL RETAIN ITS ORIGINAL ACCURACY. _____ 78.00

## DRILL CHUCK

THE BALL BEARING DRILL CHUCK HAS 1/2" CAPACITY #2M.T. 15.40

## TOOL POST KNURLING TOOL

TOOL POST KNURLING TOOL IS BUILT FOR TOOLROOM AND PRODUCTION USE. THREE SETS OF KNURLS ARE AVAILABLE IN EACH TOOL SO THREE PITCHES MAY BE CUT WITHOUT CHANGE OVER. _____ 16.50

## HAND KNURLING TOOL

THE HAND KNURLING TOOL IS DESIGNED FOR KNURLING LONG OR SLENDER WORK WHICH WOULD BEND UNDER NORMAL KNURLING PRESSURE. _____ 21.00

## KNURLS

KNURLS ARE 1/2" DIAMETER BY 3/16" WIDE BY 3/16" DIAMETER HOLE. AVAILABLE IN 4 PITCHES EITHER STRIAGHT OR DIAMOND

PITCHES AVAILABLE: .019" FINE .025" MEDIUM FINE .033" MEDIUM .045" COURSE. _____ EACH 1.35

_____ PER SET OF 3 4.00

## KNURLING TOOL CASE

HARDWOOD CASE FOR HAND KNURLING TOOL _____ 3.50

**THE WADE TOOL CO. 49 RIVER ST. WALTHAM 54, MASS., U.S.A.**

*COMMERCIAL ITEM

# MODEL 94

THE VARIABLE SPEED FINISHING LATHE MEETS THE NEED FOR A PRECISE FINISHING MACHINE OR SECOND OPERATION MACHINE WITH AN INFINITE SPINDLE DRIVE FROM 300 R.P.M. TO 3000 R.P.M. RANGE AND ELECTRIC REVERSING OF THE MOTOR.

THE DRIVE HAS A CLUTCH AND BRAKE TO ALLOW STOPPING THE SPINDLE WITHOUT STOPPING THE MOTOR. ALL COMPONENTS WITH THE EXCEPTION OF THE DRIVE ARE IDENTICAL TO THE ELECTRIC CLUTCH FINISHING LATHE ON THE FRONT PAGE.

## 94 VARIABLE SPEED FINISHING LATHE

STANDARD EQUIPMENT ——— FLAME HARDENED AND GROUND SELF-CENTERING BED, TOTALLY ENCLOSED HEADSTOCK, SPINDLE NOSE GUARD, DRAW-IN SPINDLE, CENTER COLLET AND CENTER, DOG FACE PLATE, TAILSTOCK WITH CENTER.

WADE VARIABLE SPEED DRIVE WITH INFINITE SPINDLE SPEEDS FROM 300 TO 3000 R.P.M. PUSH BUTTON CONTROLLED SPEED CHANGES FROM THE CONTROL CENTER. CLUTCH CONTROL OF SPINDLE STARTING AND STOPPING COMPLETE WITH BRAKE.

WELDED STEEL CABINET WITH BUILT IN CHIP PAN AND COOLANT SUMP, REMOVABLE CHIP PAN DRAWER AND STORAGE FOR 36 COLLETS. ——— *1,992.00*

MOTOR & ELECTRICAL CONTROLS DUAL VOLTAGE
220/440 60 CY. 3 PH. OR 550 60 CY. 3 PH. — *264.00 — 2,256.00*

SUPER SLIDE REST ——— SATIN CHROME RESETTABLE DIALS CONTROL THE ½" ACME SCREWS. COMPLETE WITH OPEN SIDE TOOL POST AND REAR TOOL STATION. ——— *336.00*

LEVER COLLET CLOSER ——— INFINITELY ADJUSTABLE 3 FINGER BALL BEARING LEVER COLLET CLOSER. ——— *140.00*

BUILT IN COOLANT SYSTEM INCLUDING MOTOR DRIVEN PUMP AND COMPLETE PIPING. ——— *165.00*

MOTOR & ELECTRICAL CONTROLS TO J.I.C. STDS. — *455.00*

THE 94 UTILITY LATHE IS OFFERED WITH AN INTEGRAL DRIVE FOR CASES WHERE THE USER WISHES A UNIT ASSEMBLY FOR MOUNTING ON HIS OWN BENCH.

THIS INEXPENSIVE UNIT IS ADVANTAGEOUS IN MANY INSTALLATIONS WHERE SPACE IS AT A PREMIUM. COMBINED WITH THE SUPER SLIDE REST YOU HAVE A VERSATILE TOOLROOM OR PRODUCTION FINISHING MACHINE.

THE TYPICAL HAND TURRET LATHE ACCESSORIES SUCH AS LEVER CLOSER, DOUBLE ACTION CROSS SLIDE, AND TILTED HEAD TURRET, CAN BE APPLIED AT ANY TIME THE NEED DICTATES. JAW CHUCKS, STEP CHUCKS AND FACE PLATES ARE DRIVEN BY THE AMERICAN STANDARD A2-3" SPINDLE NOSE FOR MAXIMUM ACCUARCY AND SAFETY.

THE RANGE OF SPINDLE SPEEDS IS INFINITELY VARIABLE FROM THE LOW SPEED OF 300 TO THE HIGH OF 3000. SPINDLE REVERSE IS BY REVERSING THE ELECTRIC MOTOR.

## #94 UTILITY LATHE

STANDARD EQUIPMENT ——— FLAME HARDENED AND GROUND SELF-CENTERING BED, TOTALLY ENCLOSED HEADSTOCK, SPINDLE NOSE GUARD, DRAW-IN SPINDLE, CENTER COLLET WITH CENTER DOG FACE PLATE, TAILSTOCK WITH CENTER. — *939.00*

MOTOR DRIVEN VARIABLE SPEED DRIVE WITH INFINITE SPINDLE SPEEDS FROM 300 TO 3000 R.P.M. SPEEDS ARE SHIFTED WITH A SINGLE LEVER. ELECTRIC MOTOR REVERSE. COMPLETE WITH MOTOR AND CONTROLS.
220/440 60 CY. 3 PH OR 550 60 CY. 3 PH. — *285.00 — 1,224.00*

SUPER SLIDE REST ——— SATIN CHROME RESETTABLE DIALS CONTROL THE ½" ACME SCREWS. COMPLETE WITH OPEN SIDE TOOL POST AND REAR TOOL STATION. ——— *336.00*

LEVER COLLET CLOSER ——— INFINITELY ADJUSTABLE 3 FINGER BALL BEARING LEVER COLLET CLOSER. ——— *140.00*